Serial No.: 10/659,169

Docket No.: CL1518 US CNT

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1-25. (canceled).

- Claim 26. (amended) A process for producing a blend of two or more polyethylenes, comprising the step of contacting:
 - (5) (1) ethylene;
 - (6) (2) one or more <u>separately added</u> α-olefins of the formula R¹⁸CH=CH₂, wherein R¹⁸ is alkyl, wherein R¹⁸ has an even number of carbon atoms;
 - (7) (3) a first active polymerization catalyst under conditions to copolymerize ethylene and the <u>separately added</u> α-olefins generated from the active ethylene oligomerization catalyst; and
 - (8) (4) a second active polymerization catalyst under conditions to polymerize ethylene, but not readily copolymerize ethylene and α-olefins.
- Claim 27. (previously presented) The process as recited in claim 26 wherein a series of α -olefins of the formula R¹⁸CH=CH₂ are present.
- Claim 28. (previously presented) The process as recited in claim 26 wherein the second active polymerization catalyst is chemically different than the first active polymerization catalyst, and has little or no tendency to copolymerize ethylene and α-olefins.
- Claim 29. (previously presented) The process as recited in claim 26 wherein the second active polymerization catalyst is an Fe complex of a ligand of the general formula (III):

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$$\mathbb{R}^{1}$$
 \mathbb{R}^{4}
 \mathbb{R}^{6}
 \mathbb{R}^{2}
 \mathbb{R}^{3}
 \mathbb{R}^{5}
 \mathbb{R}^{7} (III)

wherein:

R¹, R², R³, R⁴ and R⁵ are each independently hydrogen, hydrocarbyl, substituted hydrocarbyl, or an inert functional group, provided that any two of R¹, R² and R³ vicinal to one another, taken together may form a ring; and R⁶ and R⁷ are aryl or substituted aryl.

- Claim 30. (previously presented) The process as recited in claim 26 wherein the first polymerization catalyst is a metallocene-type catalyst.
- Claim 31. (previously presented) The process as recited in claim 26 wherein the first polymerization catalyst and second polymerization catalyst are supported.
- Claim 32. (previously presented) The process as recited in claim 31 carried out in the gas phase.
- Claim 33. (previously presented) The process as recited in claim 32 wherein the second active polymerization catalyst is chemically different than the first active polymerization catalyst, and has little or no tendency to copolymerize ethylene and α-olefins.
- Claim 34. (previously presented) The process as recited in claim 33 wherein the first polymerization catalyst is a metallocene-type catalyst, and the second active polymerization catalyst is an Fe complex of a ligand of the general formula (III):

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$$R^{1}$$
 R^{2}
 R^{3}
 R^{5}
 R^{7} (III)

wherein:

R¹, R², R³, R⁴ and R⁵ are each independently hydrogen, hydrocarbyl, substituted hydrocarbyl, or an inert functional group, provided that any two of R¹, R² and R³ vicinal to one another, taken together may form a ring; and R⁶ and R⁷ are aryl or substituted aryl.

- Claim 35. (previously presented) The process as recited in claim 26 wherein the first and second polymerization catalysts are both metallocenes.
- Claim 36. (previously presented) The process as recited in claim 28 wherein the first and second polymerization catalysts are both metallocenes.
- Claim 37. (previously presented) The process as recited in claim 31 wherein the first and second polymerization catalysts are both metallocenes.
- Claim 38. (previously presented) The process as recited in claim 33 wherein the first and second polymerization catalysts are both metallocenes.
- Claim 39. (previously presented) the process as recited in claim 26 wherein at least one α -olefin wherein R¹⁸ contains an odd number of carbon atoms is also present.